

What is claimed is:

1. An apparatus for controlling at least one park brake in a vehicle, comprising:  
an electric switch assembly;

a pressure switch subassembly communicating with said electric switch assembly,  
said pressure switch subassembly being associated with at least first and second states, said  
5 pressure switch subassembly being in said first state when at least a threshold pressure is  
detected and said pressure switch subassembly being in said second state when less than said  
threshold pressure is detected;

at least one park brake release actuator; and

a control assembly in communication with each of said electric switch assembly and  
10 said pressure switch subassembly that controls application of fluid to at least said at least one  
park brake release actuator.

2. An apparatus as claimed in Claim 1, wherein:

said electric switch assembly is a solenoid actuator assembly that includes a push/pull  
knob and switch contacts, said push/pull knob being in a first position and said switch  
contacts being in a first state when the at least one park brake is released and said push/pull  
5 knob being in a second position and said switch contacts being in a second state when the  
at least one park brake is applied.

3. An apparatus, as claimed in Claim 2, wherein:

said push/pull knob is in said second position when less than said threshold pressure is detected by said pressure switch subassembly.

4. An apparatus, as claimed in Claim 2, wherein:

said solenoid actuator assembly includes a return spring for use in providing said push/pull knob in said second position.

5. An apparatus, as claimed in Claim 2, wherein:

said push/pull knob can be engaged by the vehicle operator to provide a selected one of the at least one park brake being applied and the at least one park brake being released.

6. An apparatus, as claimed in Claim 1, wherein:

said control assembly includes a solenoid pilot valve subassembly and an electrical conductor connected between said electric switch assembly and said solenoid pilot valve subassembly and in which electrical power is supplied to said solenoid pilot valve subassembly using said electrical conductor.

7. An apparatus, as claimed in Claim 1, further including:

a vehicle including a cab having said apparatus and wherein said control assembly includes at least a park brake fluid carrying line and an electrical conductor connected to said electric switch assembly and in which said electrical conductor originates from the vehicle

5 cab and said park brake fluid carrying line is located away from said vehicle cab and adjacent to the vehicle chassis.

8. An apparatus, as claimed in Claim 7, wherein:

the vehicle dash is free of any fluid carrying line used by said apparatus.

9. A method for controlling at least one park brake system in a vehicle, comprising:

providing an apparatus that includes an electrical switch assembly and a pressure switch subassembly in communication with said electric switch assembly for detecting whether a threshold pressure exists related to a fluid system of the vehicle; and

5 changing said electric switch assembly between a first position to a second position depending on said threshold pressure to release the at least one park brake system.

10. A method, as claimed in Claim 9, further including:

applying the at least one park brake system when said pressure switch subassembly detects a pressure less than said threshold pressure.

11. A method, as claimed in Claim 10, wherein:

said applying step includes causing said electric switch assembly to change to said second position and said apparatus includes a pilot solenoid valve subassembly that de-energizes when said electric switch assembly is in said second position, said pilot solenoid

- 5 valve subassembly fluidly communicating with a relay valve subassembly and in which said relay valve subassembly is used to interrupt fluid delivery to the at least one park brake system.

12. A method, as claimed in Claim 9, further including:

manually controlling said electric switch assembly while said pressure switch subassembly is detecting a pressure greater than said threshold pressure.

13. A method, as claimed in Claim 9, further including:

releasing the at least one park brake system by manually controlling said electric switch assembly when said pressure switch subassembly detects a pressure less than said threshold pressure.

14. A method, as claimed in Claim 9, wherein:

the vehicle includes a vehicle cab and vehicle dash and further including locating all fluid carrying lines associated with said apparatus away from the vehicle cab.

15. A method, as claimed in Claim 14, wherein:

mounting at least portions of said electric switch assembly in the vehicle cab and in which said electric switch assembly includes at least a first electrical conductor that extends from the vehicle cab.